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A NEW SPECIES OF HYADESIA

(ACARINA: CARPOGLYPHIDAE)

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Mites of the genus *Hyadesia* are unusual in that they normally feed on algae in salt or fresh water. Recently, specimens were received from Dr. P. Glynn of the Hopkins Marine Station, Pacific Grove, California, U.S.A. and they are described here as a new species. Dr. Glynn states that the habitat niche of this mite is within the interstices of the intertidal barnacle, *Balanus glandula*, which is covered by sea water about fifty per cent of the time.

The genus and first known species of *Hyadesia*, *H. uncinifer*, was described by Mégnin (1889), from immature forms found at Tierra del Fuego. Michael (1893), described a second species which he called *Lentungula algivorans*, and placed in the family Tyroglyphidae. *Lentungula* was later synonymised with *Hyadesia*. Lohmann (1894), described *H. fusca*, a species which was found at Heligoland in the North Sea and in 1907 described *H. kerguelensis* from the Kerguelen Islands. Halbert (1915) erected the family Hyadesidae for species of the genus *Hyadesia* (= *Lentungulidae*, Berlese 1897). André (1931) described *H. chelopus* from the Indian Ocean. Viets (1936) described the species *H. curassaviensis* from the Antillan Islands and in 1937 described *H. sellai* from the Adriatic sea. Womersley (1961) described *H. victsi* from Netherlands New Guinea.

Zachvatkin (1940) included the genus *Hyadesia* under the subfamily Carpoglyphinae of the family Glycyphagidae. One of Zachvatkin's characters for the genus was the presence of a transverse suture which separates the propodosoma and hysterosoma. But, according to Michael (1901) and Hughes (1955), *H. uncinifer*, the type species does not possess a transverse suture. Reviews of the family are given by André (1931) and Hughes (1955). Womersley includes a key to all previously described species. Hughes agrees with Zachvatkin's classification. Baker and Cunliffe (1960) proposed the raising of the subfamily Carpoglyphinae to family rank, Carpoglyphidae, and this classification is followed here.

Hyadesia glynni n. sp.

The distinctive feature of this species is the large dorsal shield which covers the greater part of the hysterosoma and extends over the posterior portion of the

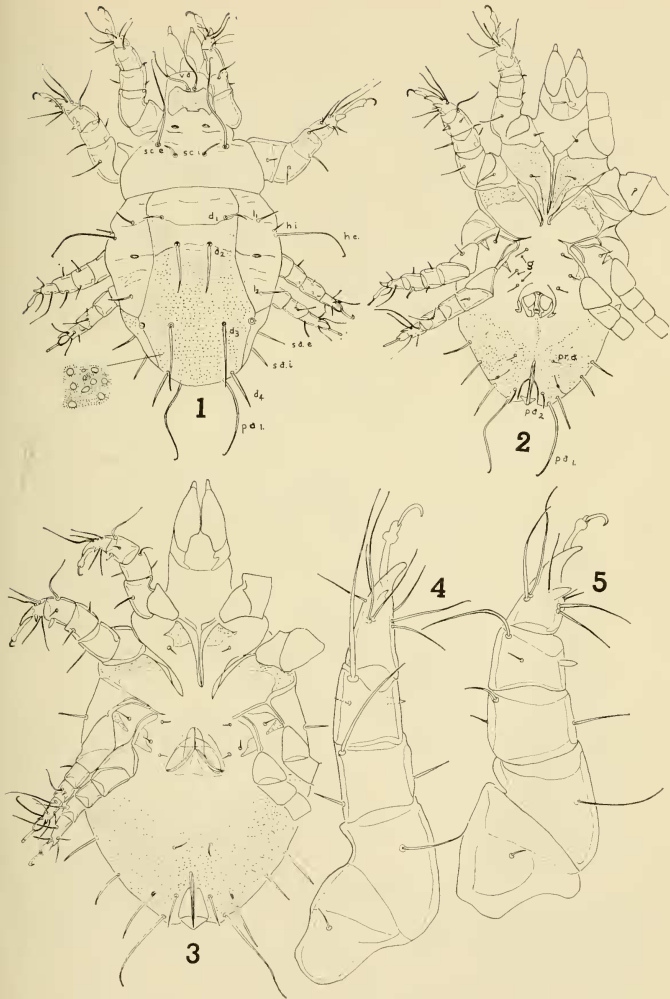
ventral surface. The only other species which appears to have a similar structure is *H. sellai*, but *H. sellai* can be distinguished by the much longer ventral spines on tibia I and II of the female, as well as the differing lengths and arrangements of the dorsal body setae.

Male.—Length of idiosoma 385 μ ; greatest width of idiosoma 242 μ . Body almost oval in shape. Colour whitish; legs, gnathosoma, dorsal and propodosomal shields and sclerotised areas on ventral surface pale brown. Cuticle mainly smooth, with a few wrinkles; pitted areas on dorsal and ventral body surfaces as shown by dotted areas in figs. 1 and 2. Dorsal propodosomal shield situated just posterior to anterior vertical setae; about twice as long as broad. Suture between propodosoma and hysterosoma distinct. Three pairs of propodosomal setae; anterior verticals (v.a.), external and internal scapulars (se.e. and se.i); pair of "fat glands" posterior to propodosomal shield. Dorsal hysterosomal shield extending complete length of hysterosoma; anterior portion of shield colourless. Dorsal setae present include four pairs of dorsals (d_1 , d_2 , d_3 , d_4), two pairs of laterals (l_1 , l_2), two pairs of humerals (h.e., h.i.), inner and outer sacerals (sa.i., sa.e.), and one pair of post anals (p.a.); pair of "fat glands" midway between setae l_1 and l_2 , and one pair opposite setae d_3 . Ventrally, the dorsal shield continues on to the ventral surface, covering much of the area posterior to legs III and IV. Two pairs of coxal setae present (on legs I and III), three pairs of genitals (g), one pair of pre-anals (p.a.) and a second pair of para-anals (p.a.₂). Apodemes I join with the sternum which extends posteriorly, but does not quite meet apodemes II. Apodemes III and IV joined. Pair of "fat glands" situated near posterior lateral margins of ventral surface of hysterosoma. Legs short and stout. Tarsi I and II terminating in a large claw formation and bearing a small spine. Arising from the base of the "claw" is a long flexible pretarsus, broadened distally, and to which is attached an empodial claw. Pretarsi III and IV shorter and broader and empodial claw larger. A number of setae, either seven or eight, varying in thickness and length encircle the distal portion of tarsus I. Tarsus II similar to I with seven setae; tarsi III and IV each with five setae. Tibiae I and II, ventrally with a stout conical spine about as long as one quarter the width of the tibia. On tibia III and IV this "spine" is more slender and elongate.

Female.—Length of idiosoma 412 μ ; greatest width of idiosoma 269 μ ; Dorsal surface similar to male. Ventral surface as in male except for genitalia and anterior pitted areas which are not as extensive; also, distance between posterior extremity of sternum and apodemes II greater than in male. Legs I and II much broader than those of male; terminal claw somewhat longer. Tarsi very similar to those of male except tarsi III and IV with three equal sized spines at distal extremity, in contrast to the single spine of the male. Tarsus I with eight setae; tarsus II with seven setae; tarsi III and IV with five setae. Tibia I with stout conical spine about as long as one quarter the width of the tibia; tibia II with stout conical spine about as long as one third the width of the tibia.

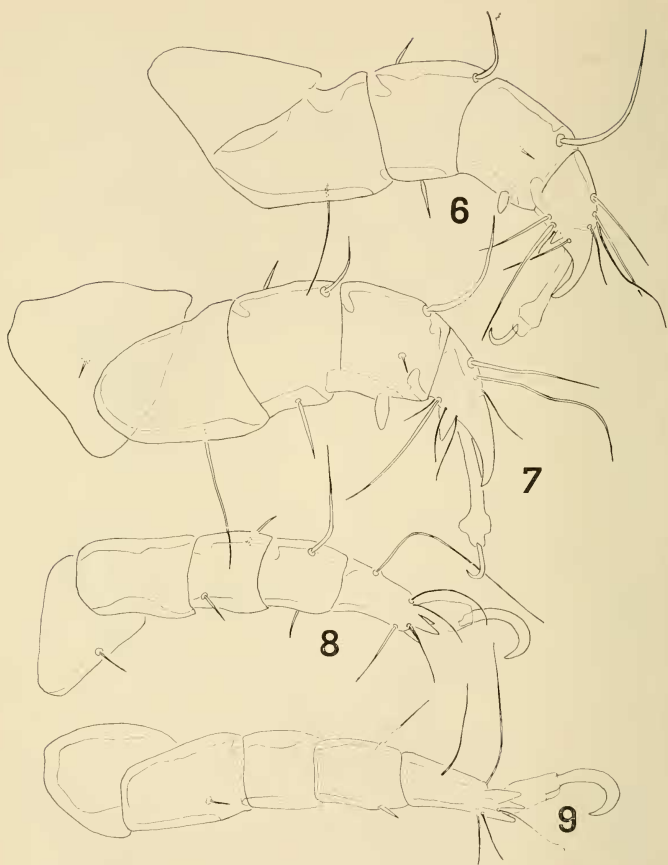
Holotype, Male.—(USNM No. 2853) collected within the interstices of the intertidal barnacle, *Balanus glandula*, Pacific Grove, California, U.S.A., by P. Glynn.

Paratypes.—Five males, seven females, with same data as holotype. The species is named after the collector, P. Glynn.



Hyadesia glynni n. sp.

Fig. 1, dorsum of male; Fig. 2, venter of male; Fig. 3, venter of female; Fig. 4, leg I of male; Fig. 5, leg II of male.



Hyadesia glynni n. sp.

Fig. 6, leg I of female; Fig. 7, leg II of female; Fig. 8, leg III of female; Fig. 9, leg IV of female.

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 THE MALE OF *DIALICTUS HETEROGNATHUS MITCHELL*
(HYMENOPTERA: HALICTIDAE)¹

A collection of Halictidae received for determination from Dr. R. A. Morse, Cornell University, contained a large series of *Dialictus heterognathus* Mitchell. The previously unknown male is herewith described.

Dialictus heterognathus Mitchell

Dialictus heterognathus Mitchell, 1960. N. C. Agr. Exp. Sta. Tech. Bull. 141: 397.

Male.—Length 5 mm.; wing length 4 mm.; head and thorax dark green, abdomen piceous with strong greenish reflections; pubescence short, white; head slightly broader than long; clypeus polished, sparsely punctate, projecting one-third below suborbital line; eyes convergent below; antennae nearer eyes than to each other, rather prominent for size of insect, basal segment of flagellum about as broad as long, following segments nearly twice as long as broad, flagellum ferruginous beneath, piceous above, scape piceous and shining; checks subequal to eyes, shining, with shallow but distinct punctures; hypostomal area finely striate, hypostomal carinae slightly divergent; scutum and scutellum shining, punctures minute, sparse in centre of discs, becoming somewhat closer laterally;